



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/300,348	04/27/1999	DOUGLAS E. MEISNER	07844/334001	4364

21876 7590 01/23/2004

FISH & RICHARDSON P.C.
3300 DAIN RAUSCHER PLAZA
MINNEAPOLIS, MN 55402

EXAMINER

POKRZYWA, JOSEPH R

ART UNIT	PAPER NUMBER
----------	--------------

2622

DATE MAILED: 01/23/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/300,348

Applicant(s)

MEISNER ET AL.

Examiner

Joseph R. Pokrzywa

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/13/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/13/03 has been entered.

Response to Amendment

2. Applicant's amendment received on 9/22/03 has been entered and made of record. Currently, **claims 1-44** are pending.

Response to Arguments

3. Applicant's arguments with respect to independent **claims 1, 27, 33, and 39** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1, 18-25, 27, and 33-44** are rejected under 35 U.S.C. 102(e) as being anticipated by Usami (U.S. Patent Number 5,748,342).

Regarding **claim 1**, Usami discloses a method of preparing an image for downloading over a link (see Fig. 1B, wherein an image is downloaded to printer 7, 8, or 9 through printer interface 6) comprising receiving a user selection for an image to prepare (step S1 in Fig. 6, column 4, lines 54 through 67, and step S30 in Fig. 21, column 6, lines 3 through 8), retrieving current user settings reflective of desired settings for compressing the image (column 5, lines 20 through 32, and column 6, line 34 through column 7, line 63), automatically deriving alternative compression settings including compression settings scaled from the current user settings (column 6, lines 34 through 50, and column 7, lines 50 through 63), and substantially simultaneously presenting a plurality of variations of the image to the user where each variation is generated using one or more compression settings (see Figs. 7, 9, 10, 17, and 20, column 5, lines 19 through 64, and column 8, lines 62 through 67).

Regarding **claim 18**, Usami discloses the method discussed above in claim 1, and further teaches that the step of presenting a plurality of variations includes receiving a user selection that defines a number of variations that are to be presented to the user (column 7, lines 50 through 63,

Art Unit: 2622

and column 8, lines 50 through 54, whereby the user can select the number of preview images that are displayed, whereby the preview images show variations in the compression settings) and generating the number of variations selected (column 7, lines 50 through 63, and column 8, lines 50 through 54, see Figs. 7, 9, 10, 17, and 20).

Regarding **claim 19**, Usami discloses the method discussed above in claim 18, and further teaches of adjusting the scaling of the current user settings for each variation depending on the number of automatic variations that are to be presented (column 7, lines 50 through 63, and column 8, lines 50 through 54, see Figs. 7, 9, 10, 17, and 20).

Regarding **claim 20**, Usami discloses the method discussed above in claim 1, and further teaches of displaying the image at the current user settings (column 5, lines 19 through 26).

Regarding **claim 21**, Usami discloses the method discussed above in claim 20, and further teaches of displaying the image at current user defined compression settings along with three variations in a four-up orientation on an output display device (column 5, lines 19 through 49, seen in Fig. 7).

Regarding **claim 22**, Usami discloses the method discussed above in claim 1, and further teaches of a first set of compression settings is derived by scaling the current user settings (column 4, lines 35 through 47, column 5, lines 26 through column 42, and column 6, lines 34 through 57) and a second set of compression settings is derived by scaling the first set of compression settings (column 4, lines 35 through 47, column 5, lines 26 through column 42, and column 6, lines 34 through 57).

Regarding **claim 23**, Usami discloses the method discussed above in claim 1, and further teaches of receiving user modifications to the current user settings and generating a variation of

Art Unit: 2622

the image using the modified user settings (column 6, lines 34 through 57, and column 7, lines 33 through 63).

Regarding **claim 24**, Usami discloses the method discussed above in claim 23, and further teaches of recalculating compression settings for each presented variation of the image using the modified user settings and re-generating each variation using the recalculated compression settings (column 4, lines 27 through 47, column 5, lines 28 through 32, column 6, lines 25 through 57, and column 7, lines 33 through 63).

Regarding **claim 25**, Usami discloses the method discussed above in claim 1, and further teaches that each variation of the image is a smaller and lower quality version relative to the image produced using the current user settings (column 5, lines 19 through 42, whereby an image having undergone color space compression inherently is a smaller and lower quality version of an image having undergone no compression).

Regarding **claim 27**, Usami discloses a computer program (column 3, lines 53 through 63) for preparing an image for downloading over a link (see Fig. 1B, wherein an image is downloaded to printer 7, 8, or 9 through printer interface 6), the computer program includes instructions for causing the computer to receive a user selection for an image to prepare (step S1 in Fig. 6, column 4, lines 54 through 67, and step S30 in Fig. 21, column 6, lines 3 through 8), retrieve current user settings reflective of desired settings for compressing the image (column 5, lines 20 through 32, and column 6, line 34 through column 7, line 63), automatically derive alternative compression settings including compression settings scaled from the current user settings (column 6, lines 34 through 50, and column 7, lines 50 through 63), and substantially simultaneously present a plurality of variations of the image to the user where each variation is

Art Unit: 2622

generated using one or more alternative compression settings (see Figs. 7, 9, 10, 17, and 20, column 5, lines 19 through 64, and column 8, lines 62 through 67).

Regarding **claim 33**, Usami discloses a computer-implemented method for preparing an image for downloading over a link (see Fig. 1B, wherein an image is downloaded to printer 7, 8, or 9 through printer interface 6), with the method comprising receiving a one or more compression settings for compressing the image (column 6, lines 34 through 57, being the selected compression algorithms) and a number specifying how many variations of the image are to be generated (column 7, lines 50 through 63, and column 8, lines 50 through 54, whereby the user can select the number of preview images that are displayed, whereby the preview images show variations in the compression settings), automatically deriving a plurality of alternative compression settings that are different from the received compression settings (column 5, lines 20 through 49, column 6, lines 18 through 61, and column 7, lines 50 through 63), and using the derived alternative compression settings to generate a plurality of variations of the image including as many variations as specified by the received number (column 7, lines 50 through 63, and column 8, lines 50 through 54, see Figs. 7, 9, 10, 17, and 20).

Regarding **claim 34**, Usami discloses the method discussed above in claim 33, and further teaches that automatically deriving a plurality of alternative compression settings includes deriving one or more alternative compression settings based on the received compression settings (column 6, lines 34 through 50, and column 7, lines 50 through 63).

Regarding **claim 35**, Usami discloses the method discussed above in claim 34, and further teaches that deriving one or more alternative compression setting based on the received

Art Unit: 2622

compression settings includes scaling the received compression settings (column 6, lines 34 through 50, and column 7, lines 50 through 63).

Regarding *claim 36*, Usami discloses the method discussed above in claim 33, and further teaches that receiving one or more compression settings includes receiving one or more compression settings based on user input (column 6, lines 34 through 50, and column 7, lines 50 through 63).

Regarding *claim 37*, Usami discloses the method discussed above in claim 33, and further teaches that generating a plurality of variations of the image includes generating a variation of the image using received compression settings (column 5, lines 19 through 64, and column 6, lines 34 through 57).

Regarding *claim 38*, Usami discloses the method discussed above in claim 33, and further teaches of concurrently displaying two or more of the plurality of variations of the image (see Fig. 7, column 5, lines 19 through 42, and column 8, lines 62 through 67).

Regarding *claim 39*, Usami discloses a computer program (column 3, lines 53 through 63) for preparing an image for downloading over a link (see Fig. 1B, wherein an image is downloaded to printer 7, 8, or 9 through printer interface 6), the computer program includes instructions for causing the computer to receive a one or more compression settings for compressing the image (column 6, lines 34 through 57, being the selected compression algorithms) and a number specifying how many variations of the image are to be generated (column 7, lines 50 through 63, and column 8, lines 50 through 54, whereby the user can select the number of preview images that are displayed, whereby the preview images show variations in the compression settings), automatically derive a plurality of alternative compression settings

Art Unit: 2622

that are different from the received compression settings (column 5, lines 20 through 49, column 6, lines 18 through 61, and column 7, lines 50 through 63), and use the derived alternative compression settings to generate a plurality of variations of the image including as many variations as specified by the received number (column 7, lines 50 through 63, and column 8, lines 50 through 54, see Figs. 7, 9, 10, 17, and 20).

Regarding *claim 40*, Usami discloses the program discussed above in claim 39, and further teaches that instructions for causing a computer to automatically derive a plurality of alternative compression settings include instructions for causing a computer to derive one or more alternative compression settings based on the received compression settings (column 6, lines 34 through 50, and column 7, lines 50 through 63).

Regarding *claim 41*, Usami discloses the program discussed above in claim 40, and further teaches that instructions for causing a computer to derive one or more alternative compression settings based on the received compression settings include instructions for causing a computer to scale the received compression settings (column 6, lines 34 through 50, and column 7, lines 50 through 63).

Regarding *claim 42*, Usami discloses the program discussed above in claim 39, and further teaches that instructions for causing a computer to receive one or more compression settings include instructions for causing a computer to receive one or more compression settings based on user input (column 6, lines 34 through 50, and column 7, lines 50 through 63).

Regarding *claim 43*, Usami discloses the program discussed above in claim 39, and further teaches that instructions for causing a computer to generate a plurality of variations of the image include instructions for causing a computer to generate a variation of the image using

Art Unit: 2622

received compression settings (column 5, lines 19 through 64, and column 6, lines 34 through 57).

Regarding *claim 44*, Usami discloses the program discussed above in claim 39, and further teaches of instructions for causing a computer to concurrently display two or more of the plurality of variations of the image (see Fig. 7, column 5, lines 19 through 42, and column 8, lines 62 through 67).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 2, 26, and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami (U.S. Patent Number 5,748,342) in view of Sugiarto *et al.* (U.S. Patent Number 6,278,449, cited in the Office action dated 7/15/03).

Regarding *claim 2, 26, and 28*, Usami discloses the method discussed above in claim 1, and the program discussed above in claim 27, and further teaches of simultaneously displaying respective modes for the displayed preview images (see Fig. 20, column 8, lines 59 through 61). However, Usami fails to teach of estimating an amount of time required to download a given variation to the user where the estimated time is calculated from an assumed transmission rate of the link, and also fails to teach of presenting the estimated download time with each variation of the image. Sugiarto discloses a method of preparing an image for downloading over a link (see

Art Unit: 2622

abstract), whereby the method comprises steps of automatically deriving alternative compression settings including compression settings scaled from current user settings (column 6, lines 44 through 51, wherein the system automatically derives alternative compression settings upon selection by a user, and whereby the compression ratios can be entered based on an image that is already in the configuration file, which would, thereby being scaled from the current user settings), and presenting a plurality of variations of the image to the user where each variation is generated using one or more compression settings (see Fig. 6, column 6, lines 41 through 65, wherein upon depression of the refresh target button 625, any of the images derived from changing the various compression ratios are displayed, thereby presenting a plurality of variations of the image). Further, Sugiarto teaches of estimating an amount of time required to download a given variation to the user where the estimated time is calculated from an assumed transmission rate of the link (see Fig. 6, time 620, column 6, lines 34 through 65). Continuing, Sugiarto also teaches that the estimated download time is presented along with each variation of the image (see Fig. 6, time 620). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teachings of Sugiarto in the system of Usami. Usami's system would become more user-friendly with the inclusion of Sugiarto's teachings, as a user would be able to consider an estimated time of downloading an image based on a particular compression ratio, and basing a selection on that estimated time, as recognized by Sugiarto.

8. **Claims 3-8, 16, 17, and 29-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami (U.S. Patent Number 5,748,342) in view of Cossey (U.S. Patent Number 6,289,118).

Regarding **claim 3**, Usami discloses the method discussed above in claim 1, but fails to particularly teach of determining a file format for the image and using the current user settings designated for the file format in presenting a representation of the image. Cossey discloses a method of preparing an image for downloading over a link (see Fig. 4, column 4, lines 35 through 53) comprising automatically deriving alternative compression settings including compression settings scaled from current user settings (column 2, line 43 through column 4, line 32). Further, Cossey teaches of determining a file format for the image and using the current user settings designated for the file format in presenting a representation of the image (see abstract, and column 2, line 43 through column 4, line 32). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding **claim 4**, Usami and Cossey disclose the method discussed above in claim 3, and Cossey further teaches that the step of determining a file format determines an optimum file format for the image based on a predominant nature of the image data (column 1, lines 41 through 57, and column 2, line 61 through column 3, line 26). Therefore, it would have been obvious to a person of ordinary skill in the art to include the further teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of

Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding **claim 5**, Usami and Cossey disclose the method discussed above in claim 4, and Cossey further teaches of the step of determining an optimum file format for the image includes determining a predominant form for objects in the image (column 1, lines 41 through 57, and column 2, line 61 through column 3, line 26) and the step of automatically deriving includes scaling compression settings from the current user settings where the particular settings that are scaled depend on the predominant form of the image (see abstract, and column 2, lines 43 through 60). Therefore, it would have been obvious to a person of ordinary skill in the art to include the further teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding **claim 6**, Usami and Cossey disclose the method discussed above in claim 5, and Cossey further teaches that the predominant form is selected from the group of photographic and line art (column 1, lines 11 through 63, and column 2, line 53 through column 4, line 32). Therefore, it would have been obvious to a person of ordinary skill in the art to include the further teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding **claim 7**, Usami and Cossey disclose the method discussed above in claim 6, and Cossey further teaches of determining if the predominant form is photographic and if so, setting the optimum file format to a JPEG/JFIF format (column 2, line 53 through column 3, line

Art Unit: 2622

67). Therefore, it would have been obvious to a person of ordinary skill in the art to include the further teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding *claim 8*, Usami and Cossey disclose the method discussed above in claim 6, and Cossey further teaches of determining if the predominant form is line-art and if so, setting the optimum file format to a GIF format (column 4, lines 1 through 33). Therefore, it would have been obvious to a person of ordinary skill in the art to include the further teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding *claim 16*, Usami and Cossey disclose the method discussed above in claim 4, and Cossey further teaches of inspecting the image to determine if any pixel in the image is transparent, and if so, setting the optimum file format to a GIF format (column 2, line 61 through column 3, line 67). Therefore, it would have been obvious to a person of ordinary skill in the art to include the further teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding *claim 17*, Usami and Cossey disclose the method discussed above in claim 4, and Cossey further teaches of inspecting the image to determine if the image includes more than one animation frame, and if so, setting the optimum file format to a GIF format (column 2, line 61 through column 3, line 26). Therefore, it would have been obvious to a person of ordinary

Art Unit: 2622

skill in the art to include the further teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding **claim 29**, Usami discloses the program discussed above in claim 27, but fails to but fails to particularly teach of instructions for causing a computer to determine a file format for the image and using the current user settings designated for the file format in presenting a representation of the image. Cossey discloses a computer program (see abstract, and column 1, line 66 through column 2, line 10) for preparing an image for downloading over a link (see Fig. 4, column 4, lines 35 through 53), the computer program includes instructions for causing the computer to automatically derive alternative compression settings including compression settings scaled from current user settings (column 2, line 43 through column 4, line 32). Further, Cossey teaches of instructions for causing a computer to determine a file format for the image and using the current user settings designated for the file format in presenting a representation of the image (see abstract, and column 2, line 43 through column 4, line 32). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

Regarding **claim 30**, Usami and Cossey disclose the program discussed above in claim 29, and Cossey further teaches that instructions for causing a computer to determine a file format include instructions for causing a computer to determine an optimum file format for the image based on a predominant nature of the image data (column 1, lines 41 through 57, and column 2,

Art Unit: 2622

line 61 through column 3, line 26). Therefore, it would have been obvious to a person of ordinary skill in the art to include the further teachings of Cossey in the system of Usami. The system of Usami would become more efficient with the inclusion of Cossey's teachings, as the optimum compression algorithm would be selected based on the file format of the input image data.

9. **Claims 9-15, 31, and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami (U.S. Patent Number 5,748,342) in view of Cossey (U.S. Patent Number 6,289,118), and further in view of Rhoads (U.S. Patent Number 5,748,763, cited in the Office action dated 7/15/03).

Regarding *claims 9*, Usami and Cossey disclose the method discussed above in claim 4, but fail to specifically teach of calculating an amount of noise in the image, setting the optimum file format to a JFIF format if the amount of noise is above a predefined threshold, and otherwise setting the optimum file format to a GIF format. Rhoads teaches of determining an optimum format by calculating an amount of noise in the image (column 42, lines 13 through 51), setting the optimum file format to a JFIF format (being JPEG File Interchange Format) if the amount of noise is above a predefined threshold, and otherwise setting the optimum file format to a GIF format (column 57, lines 10 through 37). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Regarding *claim 10*, Usami, Cossey, and Rhoads disclose the method discussed above in claim 9, and Rhoads further teaches that the step of calculating an amount of noise includes for each pixel in the image, comparing a relative color change between the pixel and one or more adjacent pixels to derive relative color change data (column 38, lines 28 through 54), determining an overall color change for the image using the relative color change data for each pixel (column 35, lines 10 through 40, and column 39, line 9 through column 40, line 24), and comparing the overall color change to the threshold value (column 38, lines 28 through 54, and column 39, line 52 through column 40, line 24). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Regarding *claim 11*, Usami, Cossey, and Rhoads disclose the method discussed above in claim 10, and Rhoads further teaches that the step of comparing the relative color change includes deriving a first set of color change data for a pixel by comparing the color of the pixel with a pixel immediately next in raster order (column 17, lines column 28, lines 10 through 27, and column 38, lines 28 through 54). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Regarding *claim 12*, Usami, Cossey, and Rhoads disclose the method discussed above in claim 11, and Rhoads further teaches that the step of comparing the relative color change includes deriving a second set of color change data for the pixel by comparing the color of the pixel with a pixel at a same location in a next scanline of pixels for the image (column 21, line 52 through column 22, line 3, and column 34, line 54 through column 35, line 40, and column 38, lines 28 through 54). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Regarding *claim 13*, Usami, Cossey, and Rhoads disclose the method discussed above in claim 12, and Rhoads further teaches that the step of determining an overall color change includes for each color change data set, summing all the color change data and averaging over the image (column 21, line 8 through column 22, line 3). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Regarding *claim 14*, Usami, Cossey, and Rhoads disclose the method discussed above in claim 9, and Rhoads further teaches that the step of determining an overall color change includes summing all the color change data for the image and averaging over the image (column 10, lines 11 through 41). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and

Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Regarding *claim 15*, Usami, Cossey, and Rhoads disclose the method discussed above in claim 9, and Rhoads further teaches that the step of comparing a relative color change determines an actual color difference irrespective of a perceptual color difference (column 8, line 50 through column 9, line 12). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Regarding *claims 31*, Usami and Cossey disclose the program discussed above in claim 30, but fail to specifically teach of instructions for causing a computer to calculate an amount of noise in the image, set the optimum file format to a JFIF format if the amount of noise is above a predefined threshold, and otherwise set the optimum file format to a GIF format. Rhoads teaches of determining an optimum format by calculating an amount of noise in the image (column 42, lines 13 through 51), setting the optimum file format to a JFIF format (being JPEG File Interchange Format) if the amount of noise is above a predefined threshold, and otherwise setting the optimum file format to a GIF format (column 57, lines 10 through 37). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Art Unit: 2622

Regarding **claim 32**, Usami, Cossey, and Rhoads disclose the program discussed above in claim 31, and Rhoads further teaches that the instructions for causing a computer to calculate an amount of noise include instructions causing a computer to, for each pixel in the image, compare a relative color change between the pixel and one or more adjacent pixels to derive relative color change data (column 38, lines 28 through 54), determine an overall color change for the image using the relative color change data for each pixel (column 35, lines 10 through 40, and column 39, line 9 through column 40, line 24), and compare the overall color change to the threshold value (column 38, lines 28 through 54, and column 39, line 52 through column 40, line 24). Therefore, it would have been obvious to a person of ordinary skill in the art to include the teachings of Rhoads in the system of Usami and Cossey. The system of Usami and Cossey would easily be modified to incorporate the teachings of Rhoads, therein conforming to well known standards for graphic images, as recognized by Rhoads.

Citation of Pertinent Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Meisner *et al.* (U.S. Patent Number 6,313,824) discloses a system for previewing how an image will appear in a second graphics environment; and

Dawson (U.S. Patent Number 5,553,160) discloses a system that selects an image compression process based on characteristics of the image data.

Art Unit: 2622

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



Joseph R. Pokrzywa
Examiner
Art Unit 2622

jrj